UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/076,476	02/19/2002	Hideaki Tanaka	AOY.010	1751

7590 04/29/2004

JONES, VOLENTINE, STEINBERG & WHITT, L.L.P.
Suite 150
12200 Sunrise Valley Drive
Reston, VA 20191

EXAMINER	
LE, HOA VAN	

ART UNIT	PAPER NUMBER
1752	

DATE MAILED: 04/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/076,476	TANAKA, HIDEAKI	
	Examiner	Art Unit	
	Hoa V. Le	1752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) *1* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-7* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

This is in response to the Election filed on 06 April 2004.

I. It would like to modify and correct the Office action mailed on 12 March 2004 in view of the Election as followed:

Deletion: [Claims 2-7 are generic to a plurality of disclosed patentably distinct species comprising many possible power sources in the art. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, even though this requirement is traversed.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.] No species election is made.

B. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claim 1, drawn to a fuel cell system with the use of a soluble metal anode battery to produce and use hydrogen gas as fuel in a fuel cell system, classified in class 429, main subclass 9.

II. Claims 2-7 (Deletion [9]), drawn to a fuel cell system with the use of an electrolysis system to produce and use hydrogen gas as fuel and oxygen as oxidant in the fuel cell system, classified in class 429, main subclass 19.

The inventions of Group I and Group II are all related to the materials but have the patentably different and distinct and have acquired the separate status and searches in the art and can be supported the separate patents as divided by applicants and have no evidence on the record that is not required the separate consideration and search since they are the obvious variants because the prior art being applied to one of them would be sufficient against all inventions, restriction for examination purposes as indicated is proper. Applicant should show or provide an evidence to the contrary. In the absence of convincing evidence, the restriction would not be removed. Should applicant shows or urges otherwise in the next response to this Office action in order for it to be considered timely, broadest independent claim 1 is considered and searched as the main invention. Others are as secondary to the same limitations as those in main invention and will let to go with the main invention of claim 1 when it is considered, searched and found to be allowable only since an additional search is burdensome. Applicant should show or provide a convincing evidence to the contrary.

> Because these inventions are distinct for the reasons given above and have acquired the separate status and searches in the art and can be supported the separate patents as divided by applicants and have no evidence of the record that are not required the separate consideration and search since they are the obvious variants because the prior art being applied to one of them would be sufficient against all inventions, restriction for examination purposes as indicated is proper. Applicant should show or provide an evidence to the contrary. In the absence of convincing evidence, the restriction would not be removed.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

A telephone call was made to Mr. Adam C. Volentine on 08 March 2004 to request an oral election to the above restriction requirement, but did not result in an election being made.

His client is overseas.

C. Deletion: [Dependent claims 4-7 and 12-13 would be let to go along with their elected, considered, searched and allowable Group of the claims if they are amended to be proper.] It is incorrect.

II. Applicant elects the invention of Group II, claims 2-7, without traverse on 06 April 2004 is acknowledged.

III. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt (US 2004/0072046), Skoczylas et al (6,666,961), Iarochenko et al (6,372,371), Kikuchi (5,616,9630 and Nixon et al (US 2002/0108648)

Schmidt discloses, teaches and suggests a fuel cell in operation using hydrogen gas and oxygen gas to produce an electrical power supply in a relatively small package with an harmless byproduct. Please see the whole disclosure of each of the applied references, especially in Schmidt at paragraphs 0004 and 0030. Skoczylas et al is cited to show the known method for obtaining hydrogen gas and oxygen gas using a high pressure electrolysis for fuel cell consumption in its operation to product an electrical power..., especially at col.1:17 to 2:36 and 10:16-63. Iarochenko et al is cited to show the known auxiliary soluble metal anode battery..., especially at figures 1, 2(A and B) and their descriptions, col.3:35-47, 4:5-8, 7:43 to 8:21. Kikuchi is cited to show the known auxiliary wind power generator..., figures 1 and 3 and their description, col.1:7-10. Nixon et al is cited to show the known auxiliary solar battery system at figure 1 and its description and paragraphs 0012 and 0019 to 0021. Since the above references are related to multiple types of electrical power producing apparatus and process and a electrolysis system to producing hydrogen gas and oxygen gas using an electrical power in its operation, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use auxiliary electrical power sources to operate an electrolysis system to produce hydrogen gas and oxygen gas as reactive agents for a fuel cell in its operation to produce an electrical power since fuel cell power can be in a small package with a harmless byproduct in an operation as disclosed, taught and suggested by the applied references.

IV. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoa V. Le whose telephone number is 571-272-1332. The examiner can normally be reached from 6:30 AM to 4:00 PM on Monday though Thursday

and about the same time of most Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark F. Huff can be reached on 571-272-1385.

Applicants may file a paper by (1) fax with a central facsimile receiving number 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hoa V. Le
Primary Examiner
Art Unit 1752

HVL
26 April 2004

HOA VAN LE
PRIMARY EXAMINER